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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Heinz-Jurgen Lang

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EXAMINER

AMORES, KAREN J

ART UNIT

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3616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,581	Applicant(s) LANG ET AL.	
	Examiner KAREN A. BECK	Art Unit 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/10/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13 and 14 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a spring indicating the predetermined tension, does not reasonably provide enablement for that spring to be in series with the spring (or deformable member) for urging the shaft in rotation because they are shown in the specification and by the claim dependencies to be the same spring. Additionally, original claim 13 attempts to clarify by stating the first spring claim 6. However, claim 13 does not depend on claim 6. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Appropriate correction is required.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 – 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 1 recites the limitation "the securing means" in lines 6 – 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the distal limbs" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 recites the limitation "a spring" arranged in series with "the spring" in line 3 of the claim. The Office suggests changing "a spring" with -- a second spring -- in claim 12, and therefore changing claim 13 from "the spring" to -- the second spring -- for consistency.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 3, 7, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Enomoto, U.S. 2005/0146197 ("Enomoto"). Enomoto discloses a belt tension indicator [0009] capable for indicating tension in a belt (1) from a child safety seat [0010] to an anchorage, the indicator comprising:

a housing (11) accommodating an end of the belt (1); anchorage means (21) extending from within the housing for securing the end of the belt to the anchorage;

an at least partially resilient connection of the belt (26) in the housing to securing means, the connection allowing resilient withdrawal of the belt from the housing at least to a predetermined tension [0007] associated with correct installation of the belt [0001]; and

an indicator [0008] for indicating that the predetermined tension in the belt has been reached [0008]; the resilient connection being adapted to allow further withdrawal of the belt at higher tension ([0045] and [0056]).

In reference to claims 2, 3, 7 and 10, Enomoto further discloses the resilient connection is adapted to allow the further withdrawal in a resilient manner [0041]; wherein the resilient connection is adapted to allow the further withdrawal at a spring rate (simple compression spring 26) which is the same as a spring rate applied to the belt during as that to the resilient withdrawal to the predetermined tension; wherein the resilient connection is adapted to allow the further withdrawal at least partially at a steady tension; and wherein the anchorage means is a length of strap (5).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 7, and 9 – 14, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabeony et al. U.S. 2005/0006934 (“Rabeony”) in view of Kielwein et al. U.S.

7,651,136 (“Kielwein”). Rabeony discloses a belt tension indicator (14) for indicating tension in a belt [0002] from a child safety seat (11) to an anchorage (fig. 1), the indicator comprising:

- a housing [0022] accommodating an end of the belt [0006]; anchorage means (23) extending from within the housing for securing the end of the belt to the anchorage;

- an at least partially resilient connection (to strap 2) of the belt in the housing to the securing means, the connection allowing resilient withdrawal of the belt from the housing at least to a predetermined tension [0001] associated with correct installation of the belt; and

- an indicator (fig. 4) for indicating that the predetermined tension in the belt has been reached.

Rabeony is silent to the resilient connection adapted to allow further withdrawal of the belt at a higher tension such as to limit deceleration of an occupant of the seat in an accident. Kielwein teaches a resilient connection (column 5, line 37) adapted to allow further withdrawal of the belt at a higher tension (fig. 11c) such as to limit deceleration of an occupant of the seat (column 3, line 58) in an accident (column 5, line 17). It would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Rabeony such that it comprised the resilient connection in view of the teachings of Kielwein so as to provide a manner in which two levels for force limitation may be achieved, requiring only a single energy converter coil (column 1, line 45).

In reference to claims 2 – 7 and 9 – 14, as best understood, Rabeony in view of Kielwein further discloses wherein the resilient connection is adapted to allow the further withdrawal in a resilient manner (Kielwein column, 5, line 37); wherein the resilient connection is adapted to allow the further withdrawal at a spring rate (same single spring) which is the same as a spring

rate (same spring) applied to the belt during as that to the resilient withdrawal to the predetermined tension; wherein the resilient connection includes a single spring (12) providing the resiliency to the predetermined tension and beyond; wherein the resilient connection is adapted to allow the further withdrawal at a higher spring rate (decreasing the radius) than a spring rate (fig. 9) applied to the belt during that to the resilient withdrawal to the predetermined tension; wherein the resilient connection includes two different rate springs, the first providing for the resilience to the predetermined tension and the second providing for further withdrawal at the higher spring rate; wherein the resilient connection is adapted to allow the further withdrawal at least partially at a steady tension (46); wherein the anchorage means is a clip (Rabeony 24); wherein the anchorage means is a length of strap (23); wherein the resilient means includes a shaft (Kielwein 8) on which the strap is wound, the shaft resiliently urged and resiliently urges the shaft in rotation to wind in the strap, at least when the strap is tensioned to the predetermined tension (fig. 7); wherein a spring (12) or plastically deformable member is arranged within the shaft, being fast with the shaft at one end and with the housing at the other end; wherein a spring for indicating the predetermined tension urges the shaft in rotation; and wherein the spring for indicating the predetermined tension is arranged to become coil bound in the event of the predetermined tension being exceeded.

Claims 1, 2, 5 – 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabeony in view of Nagata et al. U.S. 7,290,730 ("Nagata"). Nagata discloses a belt tension indicator (14) for indicating tension in a belt [0002] from a child safety seat (11) to an anchorage (fig. 1), the indicator comprising:

a housing [0022] accommodating an end of the belt [0006]; anchorage means (23) extending from within the housing for securing the end of the belt to the anchorage;

an at least partially resilient connection (to strap 2) of the belt in the housing to the securing means, the connection allowing resilient withdrawal of the belt from the housing at least to a predetermined tension [0001] associated with correct installation of the belt; and

an indicator (fig. 4) for indicating that the predetermined tension in the belt has been reached.

Rabeony is silent to the resilient connection adapted to allow further withdrawal of the belt at a higher tension such as to limit deceleration of an occupant of the seat in an accident. Nagata teaches a resilient connection (fig. 1) adapted to allow further withdrawal of the belt at a higher tension (column 1, line 43) such as to limit deceleration of an occupant of the seat in an accident (fig. 3B). It would have been obvious for a person having ordinary skill in the art at the time the invention was made to modify Rabeony such that it comprised the resilient connection in view of the teachings of Nagata so as to provide a manner in which the force limiter permits a slight amount of pulling out of the webbing while absorbing energy (column 2, line 28).

In reference to claims 2, 5 – 13 and 16, Rabeony in view of Nagata further discloses wherein the resilient connection is adapted to allow the further withdrawal in a resilient manner (86); wherein the resilient connection is adapted to allow the further withdrawal at a higher spring rate (plastic deformation) than a spring rate (106) applied to the belt during that to the resilient withdrawal to the predetermined tension; wherein the resilient connection includes two different rate springs, the first providing for the resilience to the predetermined tension and the second providing for the further withdrawal at the higher spring rate (plastic deformation);

wherein the resilient connection is adapted to allow the further withdrawal at least partially at a steady tension (plastic deformation); wherein the resilient connection includes a member (86) arranged to deform plastically to provide the steady tension; wherein the anchorage means is a clip (Rabeony 24); wherein the anchorage means is a length of strap (23); wherein the resilient means includes a shaft (Nagata 86) on which the strap is wound, the shaft resiliently urged and resiliently urges the shaft in rotation to wind in the strap, at least when the strap is tensioned to the predetermined tension; wherein a spring (38) or plastically deformable member is arranged within the shaft, being fast with the shaft at one end (40) and with the housing at the other end (36); wherein a spring for indicating the predetermined tension (38) is arranged in series with the spring or deformable member (38 or 86); and a housing molded of plastic material (resin) encloses metallic members (springs, shafts, etc) interconnecting the anchorage means and resilient connection

Allowable Subject Matter

8. Claims 15 and 17 – 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dybro, U.S. 5,443,302 discloses a belt tensioner wherein a spring is arranged in series with a deformable member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAREN A. BECK whose telephone number is (571)272-6212. The examiner can normally be reached on Monday through Friday, 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571)-272-7742. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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